Amendments to the Claims:

1.-11. (canceled)

12. (currently amended) A fuel cell, comprising a separator disposed between two electrolyte-electrode units, wherein

the separator is formed from two plates, a first and a second plate, each plate having embossings, and the plates touching each other at contact surfaces, wherein the embossings are formed as circular depressions, and wherein the embossings of the plates are offset relative to one another such that one circular depression of the first plate is connected to three circular depressions of the second plate by an overflow section, thereby forming a reticulated cooling chamber structure covering an entire surface of the separator;

a first fluid chamber for a coolant is formed between the two plates and a second fluid chamber for a gas is formed between each plate and [[the]] an adjacent electrolyte-electrode unit in each case; and

the first fluid chamber for the coolant has two subchambers, each subchamber facing one of the two plates, where the subchambers are arranged adjacent and non-planar to each other and are separated by a central plane comprising an overflow section configured to direct the coolant flow alternately through the two [[and]] non-planar subchambers.

13. (previously presented) The fuel cell according to claim 12, wherein the plates have approximately identical embossings.

14.-19. (canceled)

20. (previously presented) The fuel cell according to claim 12, wherein the contact surfaces are gold-plated.

21. (previously presented) The fuel cell according to claim 13, wherein the contact surfaces are gold-plated.

22. (previously presented) The fuel cell according to claim 12, wherein the contact surfaces are distributed approximately uniformly over the surface of the separator.

23. (previously presented) The fuel cell according to claim 13, wherein the contact surfaces are distributed approximately uniformly over the surface of the separator.

24. (previously presented) The fuel cell according to claim 12, wherein the total surface area of the contact surfaces is at least 10% of the surface area of the separator.

25. (previously presented) The fuel cell according to claim 13, wherein the total surface area of the contact surfaces is at least 10% of the surface area of the separator.

26. (previously presented) The fuel cell according to claim 12, wherein the total surface area of the contact surfaces is no more than 90% of the surface area of the separator.

27. (previously presented) The fuel cell according to claim 13, wherein the total surface area of the contact surfaces is no more than 90% of the surface area of the separator.

28. (canceled)

29. (currently amended) A heating device of a fuel cell, comprising:

a flow directing element disposed between opposite edge plates, wherein the flow directing element is formed as a heating element from two plates, a first and a second plate, each plate having embossings, and the plates touching each other at contact surfaces, wherein the embossings are formed as circular depressions, and wherein the embossings of the plates are offset relative to one another such that one circular depression of the first plate is connected to three circular depressions of the second plate by an overflow section, thereby forming a reticulated cooling chamber structure covering an entire surface of the separator; and

a flow chamber being formed between the heating element and an edge plate in each case and another flow chamber being formed between the plates, the last mentioned flow chamber having subchambers, each subchamber facing a plate and comprising an overflow section configured to provide a flow path solely on an alternating basis.

30. (currently amended) The heating device according to claim 29, wherein the fuel cell includes:

a separator disposed between two electrolyte-electrode units, wherein

the separator is formed from two plates, a first and a second plate, each plate having embossings, and the plates touching each other at contact surfaces, wherein the embossings are formed as circular depressions, and wherein the embossings of the plates are offset relative to one another such that one circular depression of the first plate is connected to three circular depressions of the second plate by an overflow section, thereby forming a reticulated cooling chamber structure covering an entire surface of the separator;

a first fluid chamber for a coolant is formed between the two plates and a second fluid chamber for a gas is formed between each plate and [[the]] an adjacent electrolyte-electrode unit in each case; and

the first fluid chamber for the coolant has two subchambers, each subchamber facing one of the two plates, where the subchambers are arranged adjacent and non-planar to each other and are separated by a central plane comprising an overflow section configured to direct the coolant flow alternately through the two non-planar subchambers.